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## Assumptions to the Annual Energy Outlook 2009

**Table 12.5. Production, Heat Content, and Sulfur, Mercury and Carbon Dioxide Emission Factors by Coal Type and Region**

| Coal Supply Region  | States  | Coal Rank and Sulfur Level | Mine Type   | 2007 Production (Million Short tons) | Heat Content (Million Btu per Short Ton) | Sulfur Content (Pounds Per Million Btu) | Mercury Content (Pounds Per Trillion Btu) | CO <sub>2</sub> (Pounds Per Million Btu) |
|---------------------|---|----------------------------|-------------|--------------------------------------|--|---|---|--|
| Northern Appalachia | PA, OH, MD, WV(North)                         | Metallurgical              | Underground | 2.9                                  | 26.33                                    | 0.70                                    | N/A                                       | 207.5                                    |
|                     |   | Mid-Sulfur Bituminous      | All         | 62.2                                 | 25.24                                    | 1.34                                    | 11.17                                     | 207.5                                    |
|                     |   | High-Sulfur Bituminous     | All         | 66.7                                 | 24.88                                    | 2.49                                    | 11.67                                     | 205.7                                    |
|                     |   | Waste Coal (Gob and Culm)  | Surface     | 14.1                                 | 12.62                                    | 2.76                                    | 63.9                                      | 205.7                                    |
| Central Appalachia  | KY(East), WV (South), VA, TN (North)          | Metallurgical              | Underground | 40.9                                 | 26.33                                    | 0.63                                    | N/A                                       | 205.9                                    |
|                     |   | Low-Sulfur Bituminous      | All         | 41.9                                 | 24.78                                    | 0.54                                    | 5.61                                      | 205.9                                    |
|                     |   | Mid-Sulfur Bituminous      | All         | 143.9                                | 24.76                                    | 0.85                                    | 7.58                                      | 205.9                                    |
| Southern Appalachia | AL, TN(South)                                 | Metallurgical              | Underground | 8.6                                  | 26.33                                    | 0.52                                    | N/A                                       | 205.4                                    |
|                     |   | Low-Sulfur Bituminous      | All         | 0.4                                  | 24.64                                    | 0.52                                    | 3.87                                      | 205.4                                    |
|                     |   | Mid-Sulfur Bituminous      | All         | 10.6                                 | 24.07                                    | 1.19                                    | 10.15                                     | 205.4                                    |
| East Interior       | IL, IN, KY(West), MS                          | Mid-Sulfur Bituminous      | All         | 21.0                                 | 22.40                                    | 1.05                                    | 5.6                                       | 204.9                                    |
|                     |   | High-Sulfur Bituminous     | All         | 75.2                                 | 22.94                                    | 2.64                                    | 6.35                                      | 204.7                                    |
|                     |   | Mid-Sulfur Lignite         | Surface     | 3.5                                  | 10.20                                    | 0.92                                    | 14.11                                     | 213.5                                    |
| West Interior       | IA, MO, KS, AR, OK, TX(Bit)                   | High-Sulfur Bituminous     | Surface     | 2.4                                  | 22.69                                    | 2.29                                    | 21.55                                     | 204.4                                    |
| Gulf Lignite        | TX(Lig), LA                                   | Mid-Sulfur Lignite         | Surface     | 30.3                                 | 13.24                                    | 1.18                                    | 14.11                                     | 213.5                                    |
|                     |   | High-Sulfur Lignite        | Surface     | 14.8                                 | 12.47                                    | 2.34                                    | 15.28                                     | 213.5                                    |
| Dakota Lignite      | ND, MT(Lig)                                   | Mid-Sulfur Lignite         | Surface     | 30.0                                 | 13.18                                    | 1.16                                    | 8.38                                      | 218.8                                    |
| Western Montana     | MT(Bit and Sub)                               | Low-Sulfur Subbituminous   | Underground | *                                    | 24.00                                    | 0.42                                    | 5.06                                      | 209.6                                    |
|                     |   | Low-Sulfur Subbituminous   | Surface     | 24.4                                 | 18.60                                    | 0.36                                    | 5.06                                      | 213.5                                    |
|                     |   | Mid-Sulfur Subbituminous   | Surface     | 18.6                                 | 17.16                                    | 0.76                                    | 5.47                                      | 213.5                                    |
| Northern Wyoming    | WY(Northern Powder River Basin)               | Low-Sulfur Subbituminous   | Surface     | 182.6                                | 16.85                                    | 0.38                                    | 7.08                                      | 212.7                                    |
|                     |   | Mid-Sulfur Subbituminous   | Surface     | 3.6                                  | 16.08                                    | 0.79                                    | 7.55                                      | 212.7                                    |
| Southern Wyoming    | WY(Southern Powder River Basin)               | Low-Sulfur Subbituminous   | Surface     | 250.3                                | 17.61                                    | 0.32                                    | 5.22                                      | 212.7                                    |
| Western Wyoming     | WY(Other Basins excluding Powder River Basin) | Low-Sulfur Subbituminous   | Underground | 2.8                                  | 18.25                                    | 0.62                                    | 2.19                                      | 206.5                                    |
|                     |   | Low-Sulfur Subbituminous   | Surface     | 6.1                                  | 19.07                                    | 0.48                                    | 4.06                                      | 212.7                                    |
|                     |   | Mid-Sulfur Subbituminous   | Surface     | 8.1                                  | 19.25                                    | 0.83                                    | 4.35                                      | 212.7                                    |
| Rocky Mountain      | CO, UT  | Low-Sulfur Bituminous      | Underground | 51.9                                 | 23.07                                    | 0.49                                    | 3.82                                      | 205.1                                    |
|                     |   | Low-Sulfur Subbituminous   | Surface     | 8.8                                  | 20.46                                    | 0.41                                    | 2.04                                      | 212.7                                    |
| Southwest           | AZ, NM  | Low-Sulfur Bituminous      | Surface     | 8.1                                  | 21.79                                    | 0.50                                    | 4.66                                      | 207.5                                    |
|                     |   | Mid-Sulfur Subbituminous   | Surface     | 17.5                                 | 18.36                                    | 0.82                                    | 7.18                                      | 208.8                                    |
|                     |   | Mid-Sulfur Bituminous      | Underground | 6.9                                  | 19.34                                    | 0.73                                    | 7.18                                      | 208.8                                    |
| Northwest           | WA, AK  | Mid-Sulfur Subbituminous   | Surface     | 1.3                                  | 15.60                                    | 0.25                                    | 6.99                                      | 210.0                                    |

N/A = not available.

\*Indicates that quantity is less than 50,000 short tons.

Source: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report—Manufacturing Plants"; Form EIA-5, "Quarterly Coal Consumption and Quality Report, Coke Plants"; Form EIA-6A, "Coal Distribution Report—Annual"; Form EIA-7A, "Coal Production Report", and Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report." Federal Energy Regulatory Commission, Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM-545." U.S. Environmental Protection Agency, Emission Standards Division, *Information Collection Request for Electric Utility Steam Generating Unit, Mercury Emissions Information Collection Effort* (Research Triangle Park, NC, 1999). B.D. Hong and E.R. Slatick, "Carbon Dioxide Emission Factors for Coal," in Energy Information Administration, *Quarterly Coal Report*, January-March 1994, DOE/EIA-0121 (94/Q1) (Washington, DC, August 1995).